CLAIMS

1. A data processor comprising:

a signal input section to which a video signal and an audio signal are input;

a compressing section for coding and compressing the video and audio signals to generate video data and audio data;

a stream assembling section, which divides each of the video data and the audio data into a plurality of packets, and makes a plurality of data units, in each of which a video packet representing a fraction of the video data and an audio packet representing a fraction of the audio data are multiplexed together to generate a data stream composed of a plurality of said data units; and

a writing section for writing the data stream on a storage medium,

wherein the stream assembling section determines, at least by a video playback time, what video packets and audio packets are included in each said data unit, and if a portion of audio data, which is associated with the video data stored in a predetermined data unit, is missing from the

predetermined data unit, then copied data, obtained by copying partial audio data including at least that missing portion of the audio data, is put into the data stream.

2. The data processor of claim 1, wherein the stream assembling section stores the copied data, associated with the data unit, in at least the first one of the video packets of the following data unit.

3. The data processor of claim 1, wherein the stream assembling section stores the copied data within the associated data unit.

4. The data processor of claim 1, wherein the stream assembling section stores the copied data in a dedicated audio stream within the data stream.

5. The data processor of claim 1, wherein the stream assembling section stores the copied data in a dedicated private data stream within the data stream.

6. The data processor of claim 1, wherein the stream assembling section puts copied data, obtained by copying all of the audio data synchronized with the video data, into the predetermined data unit.

7. The data processor of claim 6, wherein the stream assembling section stores the copied data in a dedicated private data stream within the data stream.

8. The data processor of claim 1, wherein the stream assembling section stores copied data, obtained by copying all of the audio data synchronized with the video data, in a dedicated audio stream within the data stream.

9. The data processor of claim 1, wherein the stream assembling section stores copied data, obtained by copying all of the audio data synchronized with the video data, in a dedicated audio stream within the data stream, and defines a transfer timing, which is earlier than the transfer timing of

the data unit as original of the copied data by a predetermined amount of time, and records the transfer timing as transfer timing information representing the transfer timing of the copied data.

10. The data processor of claim 1, wherein the stream assembling section generates the data stream as an assembly of a first file including a plurality of said data units and a second file including the copied data, and

wherein the writing section writes the data units and the copied data on the storage medium continuously.

11. The data processor of claim 10, wherein the stream assembling section defines the second file by copied data to be obtained by copying all of the audio data associated with the video data.

12. The data processor of claim 1, wherein the audio data has a data length corresponding to a first rate, and

wherein the compressing section compresses and codes the

audio signal at a second rate, which is lower than the first rate, and puts the compressed audio signal into the audio data, and

wherein the stream assembling section stores the copied data in a reserved area that represents a difference between a second data length, which is defined so as to correspond to the second rate, and the first data length of the audio data, which is defined so as to correspond to the first rate.

13. A data processing method comprising steps of:

receiving a video signal and an audio signal;

generating video data and audio data by coding and compressing the video and audio signals;

generating a data stream composed of a plurality of data units by dividing each of the video data and the audio data into a plurality of packets, and by making a plurality of data units, in each of which a video packet representing a fraction of the video data and an audio packet representing a fraction of the audio data are multiplexed together; and

writing the data stream on a storage medium,

wherein the step of generating the data stream includes the steps of determining, at least by a video playback time, what video packets and audio packets are included in each said data unit, and if a portion of audio data, which is associated with the video data stored in a predetermined data unit, is missing from the predetermined data unit, putting copied data, obtained by copying partial audio data including at least that missing portion of the audio data, into the data stream.

14. The data processing method of claim 13, wherein the step of generating the data stream includes the step of storing the copied data, associated with the data unit, in the first one of the video packets of the following data unit.

15. The data processing method of claim 13, wherein the step of generating the data stream includes the step of putting copied data, obtained by copying all of the audio data associated with the video data, into the predetermined

data unit.

16. The data processing method of claim 13, wherein the step of generating the data stream includes the step of generating the data stream as an assembly of a first file including a plurality of said data units and a second file including the copied data, and

wherein the step of writing includes the step of writing the data units and the copied data on the storage medium continuously.

17. The data processing method of claim 16, wherein the step of generating the data stream includes the step of defining the second file by copied data by copying all of the audio data associated with the video data.

18. The data processing method of claim 13, wherein the audio data has a data length corresponding to a first rate, and

wherein the step of generating the audio data includes

the step of generating the audio data by coding and compressing the audio signal at the first rate, and

wherein the step of generating the data stream includes the steps of generating the audio data by setting a second rate, which is higher than the first rate, as rate information for the audio data included in the predetermined data unit and storing the copied data in a reserved area that represents a difference between a second data length, which is defined so as to correspond to the second rate, and the first data length of the audio data, which is defined so as to correspond to the first rate.